

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1. (currently amended): A process for preparing a reactive graphite-like layered material, which is a mono- or multi-layered material having a hexagonal main framework with chemical reactivity, from a graphite-like layered material referring to a mono- or multi-layered material having a hexagonal main framework comprising the steps of:

binding atoms having a dangling bond together with each other which are adjacent to a vacancy included in said graphite-like layered material, for reducing the number of dangling bonds in the vicinity of said vacancy to form an introducing site;

introducing a molecule or atom constituting the graphite-like layered material into the introducing site; and

generating a new bond between the introduced molecule or atom and the graphite-like layered material,

wherein the vacancy included in said graphite-like layered material is formed in the shape of a diatomic vacancy or a monoatomic vacancy by detaching two adjacent atoms or one atom away from the graphite-like layered material, and

wherein the molecule or atom to be introduced into the introducing site is generated from material other than the graphite-like layered material, and the molecule or atom to be introduced into the introducing site is contacted with the graphite-like layered material for introduction.

Claim 2. (currently amended): A process for preparing a reactive graphite-like layered material, which is a mono- or multi-layered material having a hexagonal main

framework with chemical reactivity, from a graphite-like layered material referring to a mono- or multi-layered material having a hexagonal main framework comprising the steps of:

forming a vacancy in said graphite-like layered material;

reducing the number of dangling bonds in the vicinity of said vacancy by binding atoms adjacent to said vacancy together with each other to form an introducing site;

introducing a molecule or atom constituting said graphite-like layered material into the introducing site; and

generating a new bond between said introduced molecule or atom and said graphite-like layered material,

wherein the vacancy formed in said graphite-like layered material is formed in the shape of a diatomic vacancy or a monoatomic vacancy by detaching two adjacent atoms or one atom away from the graphite-like layered material, and

wherein the molecule or atom to be introduced into the introducing site is generated from material other than the graphite-like layered material, and the molecule or atom to be introduced into the introducing site is contacted with the graphite-like layered material for introduction.

Claim 3. (previously presented): The process claimed in claim 2, wherein the step of forming said vacancy comprises the step of irradiating said graphite-like layered material with an electron beam.

Claim 4. (previously presented): The process claimed in claim 1, wherein said step of forming an introducing site or said step of generating a new bond comprises the step of conducting annealing or photoexciting treatment to the graphite-like layered material.

Claim 5. (previously presented): The process claimed in claim 1, wherein said graphite-like layered material includes graphite.

Claim 6. (previously presented): The process claimed in claim 1, wherein said graphite-like layered material comprises mainly nitrogen and boron atoms.

Claim 7. (previously presented): The process claimed in claim 1, wherein said graphite-like layered material constitutes a side wall of a nanotube.

Claim 8. (previously presented): The process claimed in claim 2, wherein said step of forming an introducing site or said step of generating a new bond comprises the step of conducting annealing or photoexciting treatment to the graphite-like layered material.

Claim 9. (previously presented): The process claimed in claim 2, wherein said graphite-like layered material includes graphite.

Claim 10. (previously presented): The process claimed in claim 2, wherein said graphite-like layered material comprises mainly nitrogen and boron atoms.

Claim 11. (previously presented): The process claimed in claim 2, wherein said graphite-like layered material constitutes a side wall of a nanotube.

Claim 12. (previously presented): The process claimed in Claim 1, wherein said vacancy is formed in advance by means of irradiating said graphite-like layered material with an electron beam.

Claim 13. (previously presented): The process claimed in claim 1, wherein the introducing site is formed in the shape of an eight-membered ring from the vacancy formed in the shape of a diatomic vacancy.

Claim 14. (previously presented): The process claimed in claim 2, wherein the introducing site is formed in the shape of an eight-membered ring from the vacancy formed in the shape of a diatomic vacancy.

Claim 15 (previously presented): The process claimed in claim 1, wherein the introducing site is formed in the shape of a nine-membered ring from the vacancy formed in the shape of a monoatomic vacancy.

Claim 16. (previously presented): The process claimed in claim 2, wherein the introducing site is formed in the shape of a nine-membered ring from the vacancy formed in the shape of a monoatomic vacancy.